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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,083	10/20/2000	Kia Silverbrook	ART81US	7865

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SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

HENN, TIMOTHY J

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 05/19/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/693,083

Applicant(s)

SILVERBROOK ET AL.

Examiner

Timothy J Henn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 7 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. The office notes that references which are not copending patent application are referred to on page 12, lines 22-25 of the specification. These references are what the examiner was originally referring to in regard to paragraph 1 of the previous office action in paper number 6.

Specification

2. The amendment to the specification filed on April 13, 2004 in paper number 7 overcomes the previous objection to the specification in regards to missing reference numbers and the use of attorney docket numbers instead of US application serial numbers. This objection is therefore withdrawn.

3. The amendment to the specification filed on April 13, 2004 in paper number 7 cancels claims 4 and 5. This overcomes the previous objections of the specification lacking proper antecedent basis for the claimed subject matter, this objection is therefore withdrawn.

Claim Objections

4. The amendment to the specification filed on April 13, 2004 in paper number 7 cancels claim 8. This overcomes the previous objections of the claim failing to further limit the subject matter of the previous claim, this objection is therefore withdrawn.

Claim Rejections - 35 USC § 112

5. The amendment to the specification filed on April 13, 2004 in paper number 7 cancels claims 4 and 5. This overcomes the previous 112 first paragraph rejections of claims 4 and 5, these rejections are therefore withdrawn.

Double Patenting

6. The terminal disclaimer filed on April 13, 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,496,654 has been reviewed and is accepted. The terminal disclaimer has been recorded.

7. The terminal disclaimer filed on April 13, 2004 in paper number 8 overcomes the obvious-type double patenting rejection over US 6,496,654. This rejection is therefore withdrawn.

8. The office notes that the provisional obvious-type double patenting rejection over copending Application No. 09/693,134 in view of Sato (US 6,650,365) has not yet been addressed.

Response to Arguments

9. Applicant's arguments filed on April 13, 2004 in paper number 7 have been fully considered but they are not persuasive.

10. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that

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any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

11. In the amendment filed on April 13, 2004 the applicant argues that "Soscia only discloses printing audio data over the top of a photographic image" and further argues that "Whilst it may be intuitive to attempt to convey further information (e.g. audio data) in an invisible encoded form over a photograph, it is, in the Applicant's submission, entirely counterintuitive to print an invisible code over a printing image where the invisible code corresponds to the printed image". The office notes that Soscia was used for the notion of recording digital data in invisible ink over a printed image to allow a photograph to carry digital data files without visibly interfering with the quality of the printed image and not for the specific data which is being printed. It is also noted that while Soscia describes a preferred embodiment as storing audio information using an invisible ink over the top of a photograph, the invention of Soscia is not limited to this. In fact Soscia provides motivation for storing information other than audio information on a photograph in column 7, lines 26-30. It is therefore respectfully submitted that it would have been obvious to one skilled in the art the time when the invention was made to store other data which is common in digital camera systems, such as image data and image processing programs, on a photograph using the teachings of Soscia.

12. It is further submitted that it also would have been obvious to one skilled in the art to store the digital image data and image processing program together under the teachings of Sato et al. and to continue to store them together when printed onto a photograph in invisible ink using the method of Soscia to retain the benefits of storing an image and the image processing program which created that image together as taught by Sato et al.

13. In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

14. Therefore, in regard to the applicants arguments Claims 1-3, 6 and 7 remain rejected under 35 U.S.C 103(a) over Sato (US 6,650,365) in view of Soscia (US 5,996,893) in further view of Nelson et al. (US 6,191,406) and claim 9 remains rejected under 35 U.S.C. 103(a) over Sato (US 6,650,365) in view of Soscia (US 5,996,893) in further view of Nelson et al. (US 6,191,406) in further in view of Sharma et al. (US 5,726,693)

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 6,650,365) in view of Soscia (US 5,996,893) in further view of Nelson et al. (US 6,191,406).

[claim 1]

17. In regard to claim 1, note that Sato discloses a camera system which transforms image data by an image processing program including the steps of receiving the image data corresponding to an image (Column 2, Line 44 – Column 3, Line 44); loading an image processing program (Column 2, Line 44 – Column 3, Line 44); transforming the image data with the image processing program to produce transformed image data (Column 2, Line 44 – Column 3, Line 44) and storing the transformed image data and the image processing program in a single file (Figure 2). Therefore, it can be seen that Sato lacks the steps of encoding the transformed image data and the image processing program into a fault tolerant digital form and printing out the digital form of the transformed image data along with the encoded form of the image processing program using an ink jet printing process with an invisible ink on a surface of a print media while simultaneously printing out the transformed image data as a photographic image in a visual, human readable form on the same surface of the print media.

18. Soscia discloses a printing method which prints a human viewable image with digital data printed over the top in an invisible ink (Figure 3; Column 6, Line 59 – Column 7, Line 14) in order to provide a way to store data associated with a photograph directly on the photograph (Column 1, Lines 30-34). It is noted that although Soscia describes a preferred embodiment which stores audio data on a photograph, he also

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discloses that other types of information can be stored on the photograph (Column 7, Lines 26-30). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of Soscia to print images taken by the camera of Sato, and to store a digital version of the image processing program and transformed image of Sato on the printed photograph, using the system of Soscia.

19. It can further be seen that Sato in view of Soscia lacks a step of converting the digital format of the transformed image and the original image into a fault tolerant encoded digital form. However, Nelson et al. discloses a photograph with digital data printed over it in invisible ink in which the digital data is encoded in PDF 417, a well known fault tolerant form. It would have been obvious to one of ordinary skill in the art at the time the invention was made to encode the original and transformed image data of Sato in PDF417 format as taught by Nelson et al. prior to printing of the photograph to create a printed version of the digital data which is more resilient to physical damage without losing the ability to be read (Official Notice).

[claim 2]

20. In regard to claim 2, note that Nelson et al. discloses the use of invisible infra-red ink (Column 4, Lines 35-44) which inherently has absorption in the infra-red spectrum and negligible absorption in the visible spectrum.

[claim 3]

21. In regard to claim 3, note that Nelson et al. discloses the use of PDF417 encoding for the fault tolerant digital data, which, as is well known in the art, uses Reed-

Solomon encoding (Official Notice).

[claim 6]

22. In regard to claim 6, note that Sato in view of Soscia in further view of Nelson et al. discloses a print means that is detachable from the camera (See Soscia, Figure 1). Therefore, it can be seen that Sato in view of Soscia in further view of Nelson et al. lacks a print roll means for storing the print media and an ink supply for the printer. The office notes that Soscia discloses that "any one of a plurality of known digital printers capable of printing on a substrate" (Column 3, Lines 19-21) may be used. It is well known in the art to include ink supply reservoirs in printing devices to store a large amount of ink to be able to print multiple sheets without refilling the printer. It is also well known in the art to store print media in rolls to be able to place a large amount of print media in a small location. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use both an ink supply and a print media roll in the printer of Sato in view of Soscia in further view of Nelson et al. to be able to print a large number of pictures without the need to constantly restock the printer (Official Notice).

[claim 7]

23. In regard to claim 7, note that Sato discloses a camera system for imaging an image including means for outputting the image in a digital format (Figure 1, Item 12; Column 2, Line 44 – Column 3, Line 44); the camera system further including means for inputting an image processing program (Figure 1, Item 11); means for processing the digital format of the image into a transformed version of the image in accordance with

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the program steps of the image processing program (Figure 1, Items 15, 21-27; Column 2, Line 44 – Column 3, Line 44) and means for storing the transformed image and the image processing program in a single file (Column 2, Line 44 – Column 3, Line 44).

Therefore, it can be seen that Sato lacks means for converting the digital image and the image processing program into a fault tolerant digital form and means for printing on a surface the transformed version of the image and the fault tolerant form of the encoded digital form of the image and the image processing program using an ink jet printing process, the fault tolerant form being printed in infra-red ink.

24. Soscia discloses a printing device which prints a human viewable image with digital data printed over the top in an invisible ink (Figure 3; Column 6, Line 59 – Column 7, Line 14) in order to provide a way to store data associated with a photograph directly on the photograph (Column 1, Lines 30-34). It is noted that although Soscia describes a preferred embodiment which stores audio data on a photograph, he also discloses that other types of information can be stored on the photograph (Column 7, Lines 26-30). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method of Soscia to print images taken by the camera of Sato, and to store a digital version of the image and transformed image of Sato on the printed photograph, using the system of Soscia. It can further be seen that Sato in view of Soscia lacks a printed version of the original image data and the image processing program. However, it is noted that Sato stores the transformed image data and the image processing program to allow easy conversion back to the original image when needed. It is obvious that given the system of Sato, either the transformed digital

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image or the original image can be gotten from having the other and the image processing program. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made that the original image and a copy of the image processing program can be stored instead of the transformed image and the image processing program without losing any advantages in the system (Official Notice).

25. It can further be seen that Sato in view of Soscia lacks means for converting the digital format of the transformed image and the original image into a fault tolerant encoded digital form. However, Nelson et al. discloses a photograph with digital data printed over it in invisible ink in which the digital data is encoded in PDF 417, a well known fault tolerant form. It would have been obvious to one of ordinary skill in the art at the time the invention was made to encode the original and transformed image data of Sato in PDF417 format as taught by Nelson et al. prior to printing of the photograph to create a printed version of the digital data which is more resilient to physical damage without losing the ability to be read (Official Notice). It is also noted that Nelson et al. discloses the use of infra-red ink for the printing of the secondary invisible image as a currently preferred embodiment of the ink to be used for printing of the digital data on the photographs (Column 4, Lines 35-44). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use infra-red ink in the printing system of Soscia.

[claim 8]

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26. In regard to claim 8, note that Nelson et al. discloses the use of invisible infra-red ink (Column 4, Lines 35-44) which inherently has absorption in the infra-red spectrum and negligible absorption in the visible spectrum.

27. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 6,650,365) in view of Soscia (US 5,996,893) in further view of Nelson et al. (US 6,191,406) as applied to claim 7 above, and further in view of Sharma et al. (US 5,726,693).

[claim 9]

28. In regard to claim 9, note that Sato in view of Soscia in further view of Nelson et al. discloses all limitations with the exception of the use of a page width print head using an ink jet structure with a print roll media feeder as the printing means. However, it is noted that Soscia discloses that "any one of a plurality of known digital printers capable of printing on a substrate" (Column 3, Lines 19-21) may be used.

29. Sharma et al. discloses an ink jet page width printing means with feed rollers for moving the print media (Figure 1; Abstract) which provides for a significantly reduced energy requirement (Column 4, Lines 25-27). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the printer device of Sharma et al. to reduce the total energy requirement of the system.

Conclusion

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30. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J Henn whose telephone number is (703) 305-8327. The examiner can normally be reached on M-F 7:30 AM - 5:00 PM, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJH
5/12/2004


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